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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/016,143

12/17/2001

Tetsuro Asano

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7590

06/03/2004

MORRISON & FOERSTER LLP  
1650 TYSONS BOULEVARD  
SUITE 300  
MCLEAN, VA 22102

EXAMINER

TRAN, TAN N

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/016,143

Applicant(s)

ASANO ET AL.

Examiner

TAN N TRAN

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on amendment filed on 04/19/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12, 25, 26, 29 is/are allowed.
- 6) ☒ Claim(s) 27 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27,28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al. (6,124,736).

With regard to claim 27, Yamashita et al. disclose four input terminal pads (IO,IO', II, II'); two common output terminal pads (O,O'); no more than two control terminal pads (S,S'), two single pole double throw switches, a first single pole double throw switch having transistors (T200,T201), and a second single pole double throw switch having transistors (T202,T203). (Note C200, Fig. 3b of Yamashita et al.).

Yamashita et al. disclose all the claimed subject matter except for each of the switches receiving two high frequency signals through two of the four input terminals and outputting one of the two high frequency signals to one of the two common output terminals in response to a control signal received from one of the control terminal. However, it would have been obvious to one of ordinary skill in the art to recognize that each of the switches receiving two high frequency signals through two of the four input terminals and outputting one of the two high frequency signals to one of the two common output terminals in response to a control signal received from one of the control terminal because such structure of Yamashita et al. is formed

the same that of applicant, so the structure of Yamashita et al. has the same functions as structure of applicant.

With regard to claim 28, Yamashita et al. disclose all the claimed subject matter except for the four input terminal pads receive two pairs of balanced signals, and the two common output terminal pads output one of the two pairs of the balanced signals selected by signals applied to the two control terminal pads. However, it would have been obvious to one of ordinary skill in the art to recognize that the four input terminal pads receive two pairs of balanced signals, and the two common output terminal pads output one of the two pairs of the balanced signals selected by signals applied to the two control terminal pads because such structure of Yamashita et al. is formed the same that of applicant, so the structure of Yamashita et al. has the same functions as structure of applicant.

### **Allowable Subject Matter**

2. Claims 1-12,25,26,29 are allowable over the prior art of record, because none of these references disclose or can be combined to yield the claimed invention such as a first common output terminal pad being electrically in direct contact with the source electrode or the drain electrode of the first transistor and being electrically in direct contact with the source electrode or the drain electrode of the second transistor; a second common output terminal pad being electrically in direct contact with the source electrode or the drain electrode of the third transistor and being electrically in direct contact with the source electrode or the drain electrode of the

fourth transistor as recited in claim 1; the source electrode or the drain electrode of each of the two transistors of the first switch being electrically in direct contact with the common output terminal pad of the first switch, and the source electrode or the drain electrode of each of the two transistors of the second switch being electrically in direct contact with the common output terminal pad of the second switch as recited in claim 25, and the four input terminal pads are configured to receive two pairs of balanced analog signals and the two common output terminal pads are configured to output one of the two pairs of balanced analog signals received by the four input terminal pads.

### **Response to Amendment**

3. Applicant's arguments with respect to claims 27,28 have been considered but are moot in view of the new ground(s) of rejection.

### **Conclusion**

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (571) 272-1923. The examiner can normally be reached on M-F 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for after final communications.

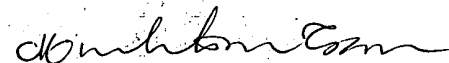
Application/Control Number: 10/016,143  
Art Unit: 2826

Page 5

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

TT

May 2004



**Minhloan Tran**  
**Primary Examiner**  
**Art Unit 2826**